

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING

# PCT

## NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

( PCT Rule 71.1 )

To:  
**SESHIN PATENT & LAW FIRM**  
  
8th Fl., KFSB Bldg., 16-2, Yeodo-dong, Yeongdeungpo-gu,  
150-010 Seoul, Republic of Korea

Date of mailing (day/month/year) 16 JULY 2004 (16.07.2004)
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Applicant's or agent's file reference PCT0127	<b>IMPORTANT NOTIFICATION</b>
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International application No. <b>PCT/KR2002/002399</b>	International filing date (day/month/year) <b>20 DECEMBER 2002 (20.12.2002)</b>	Priority date (day/months/year) <b>15 MARCH 2002 (15.03.2002)</b>
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Applicant  <b>KOREA CAD/CAM SOLUTIONS INC. et al</b>
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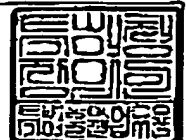
1. The applicant is hereby notified that International Preliminary Examining Authority transmits here with the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details in the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

<p>Name and mailing address of the IPEA/KR   <b>Korean Intellectual Property Office</b>          920 Dunsan-dong, Seo-gu, Daejeon 302-701,          Republic of Korea</p> <p>Facsimile No. 82-42-472-7140</p>	<p>Authorized officer  <b>COMMISSIONER</b></p> <p>Telephone No. 82-42-481-5281</p>
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COPY FOR IB

PATENT COOPERATION TREATY

**PCT**

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

REC'D 23 JUL 2004



WIPO

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Applicant's or agent's file reference PCT0127	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR2002/002399</b>	International filing date (day/month/year) <b>20 DECEMBER 2002 (20.12.2002)</b>	Priority date (day/month/year) 15 MARCH 2002 (15.03.2002)
International Patent Classification (IPC) or national classification and IPC  <b>IPC7 B22D 17/00</b>		
Applicant  <b>KOREA CAD/CAM SOLUTIONS INC. et al</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of        sheets.

3. This report contains indications relating to the following items:
- I ☒ Basis of the report
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

Date of submission of the demand  14 OCTOBER 2003 (14.10.2003)	Date of completion of this report  14 JULY 2004 (14.07.2004)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  NA, Dong Kyu  Telephone No. 82-42-481-5468 

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2002/002399

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

☒ the international application as originally filed

☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language English which is

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☒ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheet \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION

International application No.

PCT/KR2002/002399

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1 - 22	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 22	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 22	YES
	Claims		NO

### 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: KR 10-0320494

D2: KR 10-0268604

#### 1. Novelty

The invention as defined in claims 1 to 6 is an apparatus for fabricating a mold comprising a die set, a mold flask, a means for heating die steel, a pressurization plunger installed at a lower side of a reception portion of the die set, a pressure control means and a graphite heat insulating board installed movably in left and right directions between the die steel received in the reception portion and the mold flask.

The inventions as defined in claims 7 to 21 are methods for fabricating a mold using the apparatus of claim 1.

The invention as defined in claim 22 is a method for fabricating a mold comprising several steps, especially using the die steel with a lot of slits formed in a longitudinal direction on a curved surface thereof. The graphite heat insulating board applied in claims 1 to 21 is not found in the documents D1 and D2. The method using the die steel with a lot of slits formed in a longitudinal direction on its curved surface is not found in the documents D1 and D2.

Therefore, the claimed inventions are considered to fulfill the requirement of PCT Article 33(1) and (2).

#### 2. Inventive step

D1 discloses an apparatus and a method for fabricating a mold in the absence of a graphite heat insulating board which can insulate an upper portion of die steel.

D2 discloses a method for fabricating a mold using a semi-solid metal forming method and an apparatus thereof. D2 discloses neither the use of a graphite heat insulating board nor the use of slit-formed die steel.

Therefore, the new features of embodying a graphite heat insulating board and using slit-formed die steel can be considered as inventive.

#### 3. Industrial applicability

All claims are considered to be industrially applicable.